

In the Claims:

Please cancel claims 4, 16 and 17.

Please amend claims 2, 5 and 6 as set forth in the "Listing of Claims" below.

LISTING OF CLAIMS

Claim 1 (Canceled)

Claim 2 (Currently Amended): A processing liquid tank for storing a processing liquid, comprising:

an inner cylinder centrally disposed in the processing tank;

a cylindrical straightening vane disposed between a cylindrical wall of the processing liquid tank and the inner cylinder, the processing liquid being stored outside of the inner cylinder;

a flow passage of the processing liquid where the processing liquid descends along the inside of the cylindrical straightening vane, passes between a lower part of the straightening vane and the bottom surface of the processing liquid tank and then ascends along the outside of the straightening vane, or a flow passage of the processing liquid where the processing liquid descends along the outside of the straightening vane, passes between a lower part of the straightening vane and the bottom surface of the processing liquid tank and ascends along the inside of the straightening vane being formed; and

a pipe for flowing a heat medium arranged in the flow passage;

a baffle plate for partitioning the interior of the processing tank into an upper part and a lower part, the baffle plate being positioned upper of the pipe and the straightening vane; and

an outlet pipe for drawing the processing liquid below the baffle plate out of a region inside or outside of the straightening vane without mixing the processing liquid below the baffle plate with the processing liquid upward of the baffle plate.

Claim 3 (Original): The processing liquid tank according to claim 2, wherein the flow of the heat medium passing through the pipe and the flow of the processing liquid are opposite to each other.

Claim 4 (Canceled)

Claim 5 (Currently Amended): The processing liquid tank according to claim ~~[[4]]~~ 2, wherein the baffle plate is fixed to the inner cylinder or to the inside wall of the processing liquid tank, and the straightening vane is fixed to the baffle plate.

Claim 6 (Currently Amended): The processing liquid tank according to claim ~~[[4]]~~ 2, wherein the baffle plate is tilted, and the outlet pipe is disposed in the higher part of the baffle plate.

Claim 7 (Previously Presented): The processing liquid tank according to claim 2, wherein the pipe is formed helically in the region outer of the straightening vane.

Claim 8 (Original): The processing liquid tank according to claim 2, wherein the pipe is formed helically in the region inner of the straightening vane.

Claim 9 (Original): The processing liquid tank according to claim 2, wherein the pipe is formed helically in the region outer of the straightening vane and in the region inner of the straightening vane.

Claim 10 (Previously Presented): The processing liquid tank according to claim 2, comprising a plurality of the pipes, the pipes being arranged substantially in parallel with each other.

Claim 11 (Original): The processing liquid tank according to claim 7, comprising: a plurality of the pipes, the pipes being juxtaposed with each other with their transverse sections arranged in a vertical line and formed helically in the region outer of the straightening vane.

Claim 12 (Original): The processing liquid tank according to claim 8, comprising: a plurality of the pipes, the pipes being juxtaposed with each other with their transverse sections arranged in a horizontal line and formed helically in the region inner of the straightening vane.

Claim 13 (Original): The processing liquid tank according to claim 9, comprising: a plurality of the pipes, the pipes being juxtaposed with each other with their transverse sections arranged in a vertical line and formed helically in the region outer of the straightening vane and being juxtaposed with each other with their transverse sections arranged in a horizontal line and formed helically in the region inner of the straightening vane.

Claim 14 (Original): The processing liquid tank according to claim 10, wherein at least one of said plural pipes can be changed over to pass a cooling heat medium and to pass the heating heat medium.

Claim 15 (Previously Presented): The processing liquid tank according to claim 2, wherein the liquid contact surfaces of the processing liquid tank and the pipe are respectively made of a chemical liquid resistant resin.

Claims 16 and 17 (Canceled)

Claim 18 (Previously Presented): A processing system comprising: the processing liquid tank according to claim 2; a processing unit for processing objects-to-be-processed; and a processing liquid supply line for supplying a processing liquid from the processing liquid tank to the processing unit.